

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Robert Fischer et al.
Serial No.: 10/717,363
Date Filed: November 19, 2003
Examiner: Safaipour, Bobbak
Group Art Unit: 2618
Confirmation No.: 7747
Title: **RECEIVER AND METHOD FOR
SCANNING AND RECEIVING WAKE-UP
SIGNALS WITH MULTIPLE
CONFIGURATIONS [As Amended]**

Mail Stop – Appeal Brief--Patents
Honorable Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Dear Sir:

REPLY BRIEF

Appellants have appealed to this Board from the final rejection of Claims 1-14 dated September 26, 2007. Appellants mailed a Notice of Appeal on December 14, 2007 and filed an Appeal Brief on February 14, 2008 (the “*Appeal Brief*”). The Examiner responded in an Examiner’s Answer mailed April 28, 2008 (the “*Examiner’s Answer*”). Appellants respectfully submit this Reply Brief.

In the *Examiner’s Answer*, the Examiner sustained the final rejection.

I. REAL PARTY IN INTEREST

This application is currently owned by Siemens Aktiengesellschaft, as indicated by an assignment recorded on February 24, 2004, in the Assignment Records of the United States Patent and Trademark Office at Reel 015011, Frame 0622.

II. RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this appeal.

III. STATUS OF CLAIMS

Claims 1-14 are pending in this application and all stand rejected under a Final Office Action mailed September 26, 2007 and Advisory Action mailed November 15, 2007. No claims have been allowed, withdrawn or cancelled. Appellant's presents Claims 1-14 for appeal. Appendix A shows all pending claims.

IV. STATUS OF AMENDMENTS

No amendments have been filed subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 recites a method for receiving first signals and further signals using a receiver. *See, for example, specification, page 1, paragraphs [0003]-[0006], page 4, paragraph [0023].* The first and further signals differing in at least one of the transmission parameters: data rate, modulation type, wake-up criterion, synchronization and threshold. *See, for example, specification, page 1, paragraphs [0003]-[0006], and page 4, paragraphs [0023]-[0024].* The method comprises the steps of:

- a) in a first step in a quiescent mode (1) of the receiver, performing receiving and searching for a first wake-up criterion (7) intermittently using a first preset adjustable configuration (A) of transmission parameters (3) tuned for receiving the first wake-up criterion with a first data rate and/or a first modulation type and/or a

first threshold. *See*, for example, specification, page 4, paragraphs [0024]-[0026].

- b) when the first wake-up criterion is not received or found in said quiescent mode (1), switching (9) the receiver to at least one further configuration (B) different from said first preset adjustable configuration (A) and tuned for receiving a second wake-up criterion and searching for the second wake-up criterion (13). *See*, for example, specification, page 5, paragraph [0027]-[0029].
- c) if said first or second wake-up criterion has been received in step a) or b), switching the receiver into an active mode (15) with a respectively selected configuration (A, B). *See*, for example, specification, page 4, paragraph [0026] and page 5, paragraph [0029].

Independent Claim 6 recites a receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations (A, B). *See*, for example, specification, page 1, paragraphs [0003]-[0006], page 4, paragraph [0023]. The receiver has a quiescent mode (1) in which it intermittently is turned on to receive and search for a first wake-up criterion (7) using a first preset adjustable configuration of transmission parameters (A). *See*, for example, specification, page 4, paragraphs [0024]-[0026]. The receiver comprises a changeover switch (9) in order to switch to at least one further second configuration (B) different from said first configuration (A) when the first wake-up criterion is not found, and to search for a second wake-up criterion. *See*, for example, specification, page 5, paragraph [0027]-[0029]. The receiver is operable to switch into an active mode (15) with said first or second configuration (A, B), respectively in case of a successful reception of said first or second wake-up criterion. *See*, for example, specification, page 4, paragraph [0026] and page 5, paragraph [0029].

Independent Claim 10 recites a motor vehicle comprising a receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations (A, B). *See*, for example, specification, page 1, paragraphs [0003]-[0006], page 4, paragraph [0023]. The receiver further comprises a

first device coupled with said receiver. *See*, for example, specification, page 4, paragraph [0023] (the first device may be a remote keyless entry device RKE). The receiver further comprises a second device coupled with said receiver. *See*, for example, specification, page 4, paragraph [0023] (the first device may be a Tire Guard device). The receiver is operable to operate in a quiescent mode (1) in which it intermittently is turned on to receive and search for a first wake-up criterion (7) using a first preset adjustable configuration of transmission parameters (A). *See*, for example, specification, page 4, paragraphs [0024]-[0026]. The receiver comprises a changeover switch (9) in order to switch to at least a second preset adjustable configuration (B) different from said first preset adjustable configuration (A) when no signal is received and the first wake-up criterion is not found using said first preset adjustable configuration (A), and to search for a second wake-up criterion (13). *See*, for example, specification, page 5, paragraph [0027]-[0029]. The receiver is operable to switch into an active mode (15) with said first or second preset adjustable configuration (A, B), respectively in case of a successful reception of said first or second wake-up criterion.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4, 6-7, 9-11, and 13 stand rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication 2002/0177406 filed by Steve O'Conner et al. ("O'Conner").

Claims 5, 8, and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over O'Conner in view of U.S. Patent 4,633,515 issued to Harry B. Uber et al. ("Uber").

VII. ARGUMENT

In addition to the argument presented in the Appeal Brief which are hereby incorporated by reference, Appellants reply to the Examiner's Answer as follows: The Examiner maintains his position that *O'Conner* reads on independent claims 1, 6, and 10. Applicant respectfully disagrees.

Independent claim 1 includes the limitation:

"in a first step in a quiescent mode of the receiver, performing receiving and searching for a first wake-up criterion intermittently using a first preset adjustable configuration of transmission parameters tuned for receiving the first wake-up criterion with a first data rate and/or a first modulation type and/or a first threshold,"

(Claim 1) According to this limitation, within a quiescent mode the receiver intermittently receives and searches for a first wake-up criterion using a first preset adjustable configuration. The Examiner stated that this limitation is fulfilled by *O'Conner's* ASK mode. *Examiner's Answer*, page 10, section 10. In particular, the Examiner states that the ASK mode is a quiescent mode. The Examiner further stated:

"When the receiver switches from the ASK to FSK mode, the receiver is intermittently activating a receiver"

Examiner's Answer, page 11, lines 12-13. The Examiner clearly misinterpreted the term "intermittently" and its context. The claim specifically states that in the quiescent mode the receiver intermittently receives and searches the first wake-up signal. *O'Conner* clearly does not teach this step. According to *O'Conner*, during the ASK mode, the receiver is always on and thus capable of constantly receiving and searching. This mode is thus completely different from the claimed mode in which in the quiescent mode the receiver is intermittently receiving and searching. The term intermittently is sufficiently clear in this respect. Its ordinary meaning is "coming and going at intervals" or "not continuous". *O'Conner* however teaches the ASK mode to be continuously on to receive the wake-up signal.

According to the independent claims, the receiver is only active intermittently for a predetermined period of time during which the receiver searches for the wake-up signal. This mode provides for a much lower power consumption as *O'Conner's* ASK mode which is

required to be on all the time. The Examiner did not dispute that *O'Conner's* ASK mode is permanently on.

Moreover, the present independent claim further includes:

"when the first wake-up criterion is not received or found in said quiescent mode, switching the receiver to at least one further configuration different from said first preset adjustable configuration and tuned for receiving a second wake-up criterion and searching for the second wake-up criterion,"

(Claim 1) Thus, according to independent claim 1 if the intermittent search for the first wake-up signal is unsuccessful, then the receiver performs a search for a second wake-up criterion with a different configuration. The Examiner stated that *O'Conner* discloses such a second wake-up criterion. The Examiner particularly points to paragraph [0039] of *O'Conner* for allegedly disclosing this feature. *Examiners Answer*, page 15, second paragraph. Applicant respectfully disagrees. As previously stated, *O'Conner* only provides for the switching between ASK and FSK. *O'Conner* discloses in particular that a triggering event switches the receiver from ASK to FSK mode. *O'Conner* paragraph [0039], line 5-6. *O'Conner* further states that the preferred triggering event is the wake up signal 30 but that other triggering events may be implemented. *O'Conner* paragraph [0039], line 7-18. However, all these triggering events only perform the same function, namely switching from ASK to FSK. *O'Conner* further states that the speed can be used to trigger the switch between ASK and FSK. *O'Conner* paragraph [0039], line 9-13. Thus, at best, the speed could be interpreted as a triggering event that goes two ways. Above a predefined threshold, the system switches to FSK and below the threshold the system switches back to ASK. Thus, *O'Conner's* system does nothing more than switch between two modes depending on a triggering event. However, the independent claims include a different limitation, namely that in a quiescent mode a receiver intermittently searches and receives for either a first or second wake-up signal wherein to this end the configuration of the receiver is intermittently changed from a first to a second configuration to allow for receiving of the respective wake-up signal.

Independent claim 6 and 10 are even more clear with respect to this limitation. These claims state that *"the receiver has a quiescent mode in which it intermittently is turned on to receive and search for a first wake-up criterion using a first preset adjustable configuration"*

of transmission parameters”. (Claim 6 and Claim 10, emphasis added) Thus, according to these claims the receiver is turned on intermittently to receive signals. This limitation clearly implies that in the quiescent mode the receiver is normally turned off as it otherwise makes no sense to turn the receiver on. Again, *O'Conner* does not disclose this feature because the receiver either in ASK mode or in FSK mode is always on. In fact, contrary to the Examiner's arguments, for this reason alone *O'Conner* does not have a quiescent mode as defined in all independent claims but merely a lower power receiving mode. In his argument regarding claim 6 and 10, the Examiner refers to the limitations of claim 1. *Examiner's Answer*, page 16, lines 9-11. The Examiner is completely silent with respect to the above cited limitation. Thus, the Examiner's arguments regarding these claim are not responsive and therefore moot.

Therefore, Appellants respectfully request allowance of all independent claims. Appellants respectfully submit that the dependent Claims are allowable at least to the extent of the independent Claim to which they refer, respectively. Thus, Appellants respectfully request reconsideration and allowance of the dependent Claims. Appellants reserve the right to make further arguments regarding the Examiner's rejections under 35 U.S.C. §103(a), if necessary, and do not concede that the Examiner's proposed combinations are proper.

SUMMARY

Appellants have demonstrated that the present invention, as claimed, is patentable over the prior art cited by the Examiner. Therefore, Appellants respectfully request the Board to reverse the final rejections and instruct the Examiner to issue a Notice of Allowance with respect to all pending claims.

Although Appellants believe no fees are due, the Commissioner is hereby authorized to charge any additional fees and credit any overpayments to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney, Andreas Grubert, at 512.322.2545.

Respectfully submitted,

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APPENDIX A - CLAIMS INVOLVED IN APPEAL

1. (Previously Presented) A method for receiving first signals and further signals using a receiver,

the first and further signals differing in at least one of the transmission parameters: data rate, modulation type, wake-up criterion, synchronization and threshold, comprising the steps of:

- a) in a first step in a quiescent mode of the receiver, performing receiving and searching for a first wake-up criterion intermittently using a first preset adjustable configuration of transmission parameters tuned for receiving the first wake-up criterion with a first data rate and/or a first modulation type and/or a first threshold; and
- b) when the first wake-up criterion is not received or found in said quiescent mode, switching the receiver to at least one further configuration different from said first preset adjustable configuration and tuned for receiving a second wake-up criterion and searching for the second wake-up criterion, and
- c) if said first or second wake-up criterion has been received in step a) or b), switching the receiver into an active mode with a respectively selected configuration.

2. (Original) The method as claimed in claim 1, wherein when no signal is received and no wake-up criterion is found using at least one further configuration, the process starts again with step a).

3. (Previously Presented) The method as claimed in claim 1, wherein **a** first device is a remote keyless entry system and **a** second device is a tire pressure monitoring system.

4. (Previously Presented) The method as claimed in claim 1, wherein on receiving successfully and finding a wake-up criterion by step a) or b), the receiver goes out of the quiescent mode into an active mode using the configuration that was successful for the reception concerned.
5. (Previously Presented) The method as claimed in claim 1, wherein the successful reception of a wake-up criterion by step a) or b) must take place within a preset time.

6. (Previously Presented) A receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations, wherein

the receiver has a quiescent mode in which it intermittently is turned on to receive and search for a first wake-up criterion using a first preset adjustable configuration of transmission parameters, and

the receiver comprises a changeover switch in order to switch to at least one further second configuration different from said first configuration when the first wake-up criterion is not found, and to search for a second wake-up criterion,

wherein the receiver is operable to switch into an active mode with said first or second configuration, respectively in case of a successful reception of said first or second wake-up criterion.

7. (Previously Presented) The receiver as claimed in claim 6, wherein the receiver has an active mode that the receiver goes into when reception is successful and a wake-up criterion has been found using the configuration that was successful for the reception concerned.

8. (Previously Presented) The receiver as claimed in claim 6, wherein the receiver has a time-control unit so that the switchover using the changeover switch occurs within a preset time at the latest.

9. (Previously Presented) The receiver as claimed in claim 6, wherein a first device is a remote keyless entry system and a second device is a tire pressure monitoring system.

10. (Previously Presented) A motor vehicle comprising:

- a receiver for receiving first signals and further signals comprising a storage device for loading at least two different pre-definable receive configurations,
- a first device coupled with said receiver;
- a second device coupled with said receiver;
- wherein the receiver is operable to operate in a quiescent mode in which it intermittently is turned on to receive and search for a first wake-up criterion using a first preset adjustable configuration of transmission parameters, and
- wherein the receiver comprises a changeover switch in order to switch to at least a second preset adjustable configuration different from said first preset adjustable configuration when no signal is received and the first wake-up criterion is not found using said first preset adjustable configuration, and to search for a second wake-up criterion, wherein the receiver is operable to switch into an active mode with said first or second preset adjustable configuration, respectively in case of a successful reception of said first or second wake-up criterion.

11. (Previously Presented) The motor vehicle as claimed in claim 10, wherein the receiver has an active mode that the receiver goes into when reception is successful and a wake-up criterion has been found using the configuration that was successful for the reception concerned.

12. (Previously Presented) The motor vehicle as claimed in claim 10, wherein the receiver has a time-control unit so that the switchover using the changeover switch occurs within a preset time at the latest.

13. (Previously Presented) The motor vehicle as claimed in claim 10, wherein said first device is a remote keyless entry system and said second device is a tire pressure monitoring system.

14. (Previously Presented) The method as claimed in claim 1, wherein during quiescent mode, the receiver is turned on in intervals for receiving said first or second wake-up criterion.

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APPENDIX B - EVIDENCE

NONE

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APPENDIX C: RELATED PROCEEDINGS

NONE